

**Problem 1: (Refer to Loss\_&\_Accuracy.xlsx spreadsheet attached)**

1. An MLP for CIFAR10 with best model recommended after experiments in python notebook consist of following parameters:
  - Number of epochs=30
  - Batch size = 128
  - Number of neurons in a layer = 700 & 10
  - Number of layers = 2
  - Learning rate = normal
  - Activation functions = 'relu' & 'softmax'
  - Dropout rates = normal
  - Optimizer = 'rmsprop'

This model provides an accuracy of 50.05% which outputs to be max out of the 15 experiments done on parameters.

2. The model isn't that good. This model underfits data and thus requires a lot of hyperparameters to be tuned. I would improve this model by playing around with the parameters. But even after that a stage comes where the accuracy can reach maximum till 54-55% and the data overfits.